

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/674,667  
Filing Date: September 30, 2003  
Applicant: Francis M. Creighton IV  
Group Art Unit: 3737  
Examiner: John Fernando Ramirez  
Title: EFFICIENT MAGNET SYSTEM FOR  
MAGNETICALLY-ASSISTED SURGERY  
Attorney Docket: 5236-000440/US

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Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF**  
**UNDER 37 C.F.R. § 41.37**

Sir:

The Notice of Appeal in this Application was mailed on July 25, 2007. This brief is submitted with the fee required under 37 C.F.R. §1.17(f).

**APPELLANT'S BRIEF ON APPEAL**

Pursuant to 37 C.F.R. § 41.37, Appellants submit their Brief on Appeal, as follows:

***REAL PARTY IN INTEREST – UNDER 37 C.F.R. § 41.37(c)(1)(i)***

The real party in interest in this appeal is Stereotaxis, Inc., a Delaware corporation, having a place of business at 4320 Forest Park Avenue, Suite 100, St. Louis, MO 63108, by virtue of an assignment recorded at Reel 011087, Frame 0917, and an assignment recorded at Reel 011087, Frame 0908.

***RELATED APPEALS & INTERFERENCES - UNDER 37 C.F.R. § 41.37(c)(1)(ii)***

To the best of Appellants' knowledge, no other appeals or interferences are pending which will directly affect, be directly affected by or have a bearing on the Board's decision in the present pending appeal.

***STATUS OF THE CLAIMS – UNDER 37 C.F.R. § 41.37(c)(1)(iii)***

On July 25, 2007, Appellants appealed from the final rejection of Claims 39-41, 45-47 and 51-52.

- A copy of the claims presently being appealed (i.e., Claims 39-41, 45-47 and 51-52) is provided in the attached Claims Appendix.

- A copy of the Final Office Action mailed April 19, 2007 placing claims 39-41, 45-47 and 51-52 of the present application under final rejection is provided in the attached Evidence appendix.

**STATUS OF AMENDMENTS – UNDER 37 C.F.R. § 41.37(c)(1)(iv)**

A Final Office Action was mailed April 19, 2007. Subsequently, an Amendment after Final was mailed July 11, 2007, in response to which an Advisory Action was mailed August 8, 2007, indicating that the request for reconsideration in the Amendment After Final did not place the application in condition for allowance.

**SUMMARY OF THE CLAIMED SUBJECT MATTER – UNDER 37 C.F.R. § 41.37(c)(1)(v)**

Independent Claim 39

A compound magnet having a front face and comprising a plurality of segments, the segments each magnetized to provide the maximum magnetic field in a selected direction at the same selected operating point spaced from the front face of the magnet.

With regard to independent claim 39, the present application states in ¶ [0076] that in “the compound magnet of this invention, the magnet 500 is divided into segments, and the proper magnetization direction is determined for each segment”, and where ¶ [0076] teaches “determining the magnetization at the location of the center of mass that maximizes the magnetic field F at the operating point 506.” (See Fig. 17 of the present application).

#### Independent Claim 41

A magnet having a front and a back face and comprising a plurality of segments, the segments each magnetized to provide substantially the maximum magnetic field in a selected direction at the same operating point spaced from the front face, the back face being substantially contoured to follow a surface of constant contribution to magnetic field in the selected direction at the operating point.

With regard to independent claim 41, the present application states in ¶ [0079] that “the magnet 500 is constructed by selecting the desired distance between the operating point 506 and the front face 502 of the magnet”. The present application further states in ¶ [0079] that “the desired shape of the magnet 500 has the flat front face 502...a curved back face 504, which generally conforms to the curve of constant field strength, and which also represents lines of constant contribution to the desired magnetic field F... the desired magnet shape is divided up into segments”. The present application further states in ¶ [0081] that “the magnetization direction is determined for the location of the center of mass that will provide the maximum contribution to the desired field F.”

#### Independent Claim 45

A magnet for applying magnetic field in a selected direction at a selected operating point, the magnet comprising a front face generally facing the operating point, and an at least approximately curved back face facing away from the operating point, the back face generally conforming to a constant contribution surface of the magnetic field in the selected direction.

With regard to independent claim 45, the present application states in ¶ [0079] that “the magnet 500 is constructed by selecting the desired distance between the operating point 506 and the front face 502 of the magnet”. The present application further states in ¶ [0079] that “the desired shape of the

magnet 500 has the flat front face 502...a curved back face 504, which generally conforms to the curve of constant field strength." The present application states in ¶ [0081] that "the magnetization direction is determined for the location of the center of mass that will provide the maximum contribution to the desired field F."

#### Dependent Claims 40, 51 and 52

With regard to claim 40, 51 and 52, the present application states in ¶ [0081] that "The direction of magnetization in each of these segments 500a,a though 500j,k is the direction of magnetization at the location of the center of mass of the segment... and the magnetization direction is determined for the location of the center of mass that will provide the maximum contribution to the desired field F."

#### ***GROUND'S FOR REJECTION TO BE REVIEWED ON APPEAL – UNDER 37 C.F.R. § 41.37(c)(1)(vi)***

Appellants present the following issues for review:

1. Is the invention set forth in Claims 39, 41, and 45-47 anticipated by Holcomb (U.S. Pat. No. 6,042,531).
2. Is the invention set forth in Claims 40 and 51-52 non-obvious over Holcomb (U.S. Pat. No. 6,042,531) in view of Holcomb (U.S. Pat. No. 5,312,321).

**ARGUMENT – UNDER 37 C.F.R. § 41.37(c)(1)(vii)**

**1. 1<sup>st</sup> GROUND OF REJECTION ON APPEAL**

Pursuant to 37 C.F.R. § 41.37(c)(1)(vii), the following provides the contentions of appellants with respect to the 1<sup>st</sup> ground of rejection above presented for review in accordance with 37 C.F.R. § 41.37(c)(1)(vi).

**I. Holcomb Fails to Disclose all the Claim Limitations**

**Claims 39, 41 and 45**

Appellants initially note that the Holcomb reference relied upon for the above rejection neither teaches nor suggests a compound magnet comprising a plurality of segments, where each segment is magnetized to provide a magnetic field in a selected direction at the same operating point spaced from the front face of the magnet.

First, Holcomb '531 fails to disclose a compound magnet having a plurality of segments, as presently claimed and described in the context of the present application. The present application describes one exemplary compound magnet made from an array of segments at a total weight of 511 pounds that was capable of generating a magnetic field of 0.1 Tesla at an operating point 9 inches from the front face. The present application also contrasts this exemplary compound magnet with a conventional cylindrical bi-polar magnet, which would need to weigh 2100 pounds to produce a comparable magnetic field at a comparable distance. Thus, a person of ordinary skill in the art would understand from the specification the distinction between Appellants' compound magnet and a conventional cylindrical bi-polar magnet.

Even the second Holcomb 5,312,321 patent cited by the Examiner describes Holcomb's magnets as "cylindrical magnetic bodies with opposite poles on opposite faces." (See Holcomb, 5,312,321, Col. 3, lines 21-22; Fig. 2). Thus, one skilled in the art would understand Holcomb's magnets as cylindrical magnet bodies, rather than a compound magnet constructed of segments.

The Final Office Action states on page 4 that Holcomb '531 discloses a magnet divided into a plurality of segments (elements 22, 24, 20 and 18). Contrary to the present compound magnet defined to have a plurality of segments, Holcomb discloses a magnetic flux generator 12 comprising four identical electromagnets, each having a positive pole and a negative pole (Holcomb, Col. 13, lines 35-37; Fig. 4). Thus, the four separate individual cylindrical bi-polar magnets in Holcomb each form separate conventional cylindrical bi-pole magnets (See Holcomb, Fig. 7), rather than a single compound magnet constructed of segments as would be understood by a person of ordinary skill in the art.

Moreover, claims 39 and 41 clarify that the magnet segments provide a magnetic field in a selected direction at the same selected operating point spaced from the front face of the magnet. However, the four Holcomb magnets 22, 24, 20 and 18 that the Office Action asserts each have opposing polarity, such that the four magnets each provide fields in different directions to create a complex quadrilateral-shaped field. (Holcomb, Col. 14, line 40). Holcomb states at Col. 23, lines 15-21, that:

heads 18 and 22 generate magnetic flux fields opposite from the magnetic flux fields generated by heads 20 and 24. As can be seen in FIG. 2, coils 19 and 23 are connected to the DC power source so as to

generate a negative magnetic field while coils 21 and 25 are oppositely connected to the DC power source so as to generate a positive magnetic field.

Thus, the four Holcomb magnets do not provide a magnetic field in a select direction at the same operating point, but rather provide opposing field directions.

Referring to Figures 7, 9 and 11 in Holcomb, the four cylindrical magnetic bodies are shown with a positive and negative pole, and resemble conventional cylindrical bi-polar magnets. Holcomb specifically teaches the arrangement of four separate magnetic bodies that establish four magnetic poles, where two positive poles define opposite diagonal vertices and two negative poles define opposite diagonal vertices of a quadrilateral shape. (See Holcomb, Col. 14, lines 40-46, Fig. 7). Holcomb states that this quadrilateral-shaped magnetic field is the electromagnetic field of the invention, which is a three-dimensional steep-gradient field having a complexity of field directions (Col. 14, line 6; Fig. 7). This is not the same as a plurality of segments that are magnetized to provide a magnetic field in a selected direction at the same selected operating point. (See the parallel magnetic field lines shown in Fig.'s 19A-D and Fig. 22 of the present application).

The Appellants submit that one skilled in the art would clearly understand a magnetic field having a selected direction to mean a magnetic field having a series of constant field strength directions (see the "series of constant field strength curves C" in Fig. 14, and paragraph [0079 of the present application). Moreover, the claimed feature of a "magnetic field in a selected direction at the



same operating point” is clearly understood in light of the present specification as the desired field direction shown in Fig. 22, for example.

Accordingly, the Appellants submit that a person of ordinary skill in the art would not understand Holcomb to include the claimed features of a compound magnet having a plurality of segments, which are each magnetized to provide a magnetic field in a selected direction at the same operating point. Rather, one skilled in the art would find the four separate conventional bi-polar magnets in Holcomb to produce a magnetic field having an ambiguous variety of directions associated with Holcomb's three-dimensional quadrilateral-shaped field.

Thus, Holcomb '531 does not teach all of the limitations in claims 39 and 41 of a compound magnet having a plurality of segments that are magnetized to provide a magnetic field in a selected direction at the same operating point, which would be understood by persons skilled in the art to mean a series of constant field lines in the same direction. As such, the magnets of claims 39 and 41 cannot be anticipated by Holcomb '531, and are allowable for at least these reasons.

#### Independent Claim 45

With reference to independent claim 45, this claim clarifies that the magnet has “...an at least approximately curved back face facing away from the operating point, the back face generally conforming to a constant contribution surface of the magnetic field in the selected direction.” As previously discussed above, Holcomb '531 discloses a magnetic flux generator 12 having four

electromagnetic heads 18, 20, 22 and 24. Each of the heads includes a conducting wire 26 wound around an iron core 28 (Col. 15, lines 20-22; FIG. 3).

Holcomb does not teach or suggest "...an at least approximately curved back face facing away from the operating point, the back face generally conforming to a constant contribution surface of the magnetic field in the selected direction." Further, the recitations of claim 45 are not inherent in the generator of Holcomb '531. Thus, the back side of the four magnet bodies in Holcomb '321 would produce a field having the complex quadrapolar configuration, which does not comport with the notion of constant contribution to a magnetic field in a selected direction. Thus, Appellants accordingly submit that claim 45 is also not anticipated by Holcomb '531, and is allowable for at least these reasons.

#### **Claims 46-47**

With regard to claims 46-47, these claims ultimately depend from claim 45, which Appellants believe to be allowable in view of the above remarks. As such, the Appellants submit that claims 46-47 are also allowable for at least these reasons.

#### **2. 2<sup>nd</sup> GROUND OF REJECTION ON APPEAL**

Pursuant to 37 C.F.R. § 41.37(c)(1)(vii), the following provides the contentions of appellants with respect to the 2<sup>nd</sup> ground of rejection above presented for review in accordance with 37 C.F.R. § 41.37(c)(1)(vi).

**1. Holcomb Do Not Give Any Reason Why a Person Of Ordinary Skill Considering Holcomb's Center-Charged Magnet Body Would Find It "Obvious To Try" Magnetizing Individual Segments In A Direction So That Each Segment Provides A Field In The Same Select Direction**

**Claims 40 and 51-52**

The Final Office Action states on page 5 that Holcomb '321 teaches a magnet in which each segment is magnetized in the direction of magnetization that, at the center of mass of the segment, provides the maximum contribution to the magnetic field in the selected direction at the selected operating point. However, Holcomb '321 states that each magnetic body is a cylindrical center-charged permanent magnet, and the magnets are of equal size and strength. (See Holcomb, 5,312,321, Col. 2, lines 48-51). Moreover, Holcomb states that center-charged magnets means the magnetic energy is concentrated on the central axis of each magnet rather than being distributed uniformly over the face of the magnet, and that the resulting magnetic field has a steeper gradient than a non center-charged face. (See Holcomb, 5,312,321, Col. 5, lines 11-17).

Contrary to Holcomb, the present application states in ¶ [0075]-[0076] that the magnet is preferably divided into a number of segments of uniform magnetization, where a magnetization direction is determined for each segment which will maximize the magnetic field direction  $F$  at the operating point 506. The present application further states, "As shown in Fig. 17,, an appropriate uniform magnetization direction for the magnet segment is determined", where the magnetization direction of each segment (as depicted by the arrows in Fig. 17) is

selected to provide the maximum contribution to the magnetic field in the selected direction at the selected operating point.

Contrary to Holcomb's teaching of a magnet being center-charged and concentrated on the central axis of each magnet in a perpendicular manner, the present application teaches an unpredictable variation of uniformly magnetizing each segment in directions differing from the segment's central axis, where the direction is that which will maximize the magnetic field in the selected direction F at the selected operating point 506. (see ¶ [0076] of the present application). The Appellants submit that such a variation would not be predictable, nor "obvious to try" in view of Holcomb '321. As such, the Appellants submit that claims 40 and 51-52 are not obvious in view of Holcomb '531 or Holcomb '321.

### **CONCLUSION**

Appellants respectfully submit that the Examiner has not shown that claims 39, 41, and 45-47 are properly anticipated by Holcomb (U.S. Pat. No. 6,042,531), or that claims 40 and 51-52 are obvious over Holcomb (U.S. Pat. No. 6,042,531) in view of Holcomb (U.S. Pat. No. 5,312,321). Accordingly, reversal of the rejections of Claims 39-41, 45-47 and 51-52 are respectfully requested.

Respectfully submitted,



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Date: September 25, 2007

**CLAIMS APPENDIX**  
**UNDER 37 C.F.R. § 41.37(c)(1)(viii)**

1. - 38. (Cancelled)

39. (Previously Presented) A compound magnet having a front face and comprising a plurality of segments, the segments each magnetized to provide the maximum magnetic field in a selected direction at the same selected operating point spaced from the front face of the magnet.

40. (Original) The compound magnet according to claim 39 wherein each segment is magnetized in the direction of magnetization that, at the center of mass of the segment, provides the maximum contribution to the magnetic field in the selected direction at the selected point.

41. (Previously Presented) A magnet having a front and a back face and comprising a plurality of segments, the segments each magnetized to provide substantially the maximum magnetic field in a selected direction at the same operating point spaced from the front face, the back face being substantially contoured to follow a surface of constant contribution to magnetic field in the selected direction at the operating point.

42-44. (Cancelled)

45. (Previously Presented) A magnet for applying magnetic field in a selected direction at a selected operating point, the magnet comprising a front face generally facing the operating point, and an at least approximately curved back face facing away from the operating point, the back face generally conforming to a constant contribution surface of the magnetic field in the selected direction.

46. (Original) The magnet according to claim 45 wherein the magnet is divided into a plurality of segments.

47. (Original) The magnet according to claim 46, wherein each segment comprises a front face, generally facing the operating point, the back face generally facing away from the operating point, the back face generally conforming to a constant contribution surface of the magnetic field in the selected direction.

48-50. (cancelled)

51. (Original) The magnet according to claim 47 wherein each segment is magnetized in the direction of magnetization that, at the center of mass of the segment, provides the maximum contribution to the magnetic field in the selected direction at the selected operating point.

52. (Previously Presented) The magnet according to claim 46 wherein each segment is magnetized in the direction of magnetization that, at the center of mass of the segment, provides the maximum contribution to the magnetic field in the selected direction at the selected operating point.

53-57. (Cancelled)

**EVIDENCE APPENDIX UNDER 37 C.F.R. § 41.37(c)(1)(IX)**

- A copy of the Office Action mailed April 19, 2007 placing the present application under final rejection is provided.

***RELATED PROCEEDINGS APPENDIX - UNDER 37 C.F.R. § 41.37(c)(1)(x)***

NONE.





# UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,667	09/30/2003	Francis M. Creighton IV	<u>5236-000440</u>	5015
28997	7590	04/19/2007		
HARNES, DICKEY, & PIERCE, P.L.C.				
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ST. LOUIS, MO 63105				
EXAMINER				
RAMIREZ, JOHN FERNANDO				
ART UNIT		PAPER NUMBER		
3737				

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/674,667

Applicant(s)

CREIGHTON ET AL.

Examiner

John F. Ramirez

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) 1-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39-41, 45-47, 51 and 52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments filed January 25, 2007 with respect to claims 39-41, 45-47, and 51-52 have been considered but are moot in view of the new ground(s) of rejection. Therefore, the following office action is provided in order to expedite the prosecution of this application.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 39 and 41 recites the limitation "the same selected operating point" in the last two lines of the claim. There is insufficient antecedent basis for this limitation in the claim.

Regarding claims 45-47, and 51-52, the phrase "an at least approximately curve" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). (see also *Ex parte* Eastwood, 163 USPQ 316 (PTO Bd. App. 1968)).

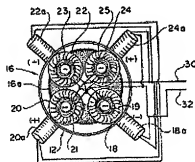
***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

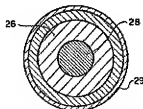
A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 39, 41 and 45-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Holcomb (US 6,042,531).



F I G . 2

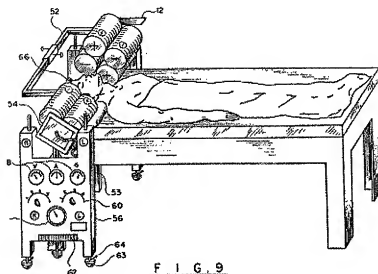


F I G . 3

Holcomb discloses a magnet having a front and a back face and comprising a plurality of segments (see Figs. 9,11), the segments each magnetized to provide substantially the maximum magnetic field in a selected direction at an operating point spaced from the front face, the back face being substantially contoured to follows a

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surface of constant contribution to magnetic field in the selected direction at the operating point (abstract, column 15, lines 5-67, Figs. 2 and 3).



With respect to claims 45-47, Holcomb '531 shows as described above a magnet for applying magnetic field in a selected direction at a selected operating point (abstract), the magnet comprising a front face generally facing the operating point, and a back face facing away from the operating point, the back face generally conforming to a constant contribution surface of the magnetic field in the selected direction, and wherein the magnet is divided into a plurality of segments (figure 2, elements 22,24,20,18) segment comprises a front face, generally facing the operating point, the back face generally facing away from the operating point, the back face generally conforming to a constant contribution surface of the magnetic field in the selected direction (see Figures 9, 11 and related description).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 40, and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holcomb (US 6,042,531) in view of Holcomb (US 5,312,321).

Holcomb '531, teaches all the limitations of the claimed subject matter except for mentioning specifically that each segment of the magnet is magnetized in the direction of magnetization that, at the center of mass of the segment, provides the maximum contribution to the magnetic field in the selected direction at the selected operating point.

However, a magnet in which each segment is magnetized in the direction of magnetization that, at the center of mass of the segment, provides the maximum contribution to the magnetic field in the selected direction at the selected operating point is considered conventional in the art as evidenced by the teachings of Holcomb (US 5,312,321).

The Holcomb '321 patent teaches a magnet in which each segment is magnetized in the direction of magnetization that, at the center of mass of the segment, provides the maximum contribution to the magnetic field in the selected direction at the selected operating point. (see figures 2, 3 and 5, column 3, lines 42-68 and column 4, lines 1-26).

Based on the above observations, for a person of ordinary skill in the art, modifying the method disclosed by Holcomb'531, with the above discussed enhancements would have been considered obvious because such modifications would provide that the magnetic field and its gradient is concentrated on the central axis of each magnet rather than being distributed uniformly over the face of the magnet, so that the device will perform properly, such magnetic field distribution has a significant factor in the effectiveness of the magnetic device.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

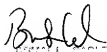
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John F. Ramirez whose telephone number is (571) 272-8685. The examiner can normally be reached on (Mon-Fri) 7:30 - 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JFR

  
BRIAN L. CASLER  
SUPERVISOR  
ART UNIT 3737